

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

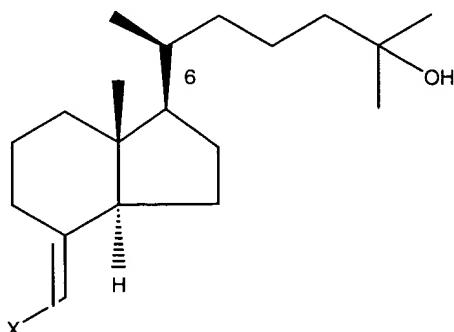
Claim 1. (canceled)

Claim 2. (canceled)

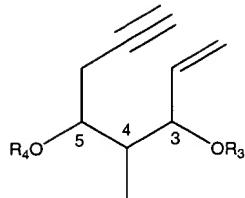
Claim 3. (Amended): A 1,25-dihydroxy-2-methylvitamin D₃ compound, wherein the compound is

- (i) (20S)-1 α , 25-dihydroxy-2 β -methyl-3 β -vitamin D₃;
- (ii) (20S)-1 β , 25-dihydroxy-2 β -methyl-3 α -vitamin D₃;
- (iii) (20S)-1 α , 25-dihydroxy-2 α -methyl-3 β -vitamin D₃; or
- (iv) (20S)-1 α , 25-dihydroxy-2 α -methyl-3 α -vitamin D₃.

Claim 4. (Amended): A method for producing a vitamin D₃ compound described in claim 3, comprising reacting an exo-methylene compound of formula (II):



wherein X is a bromine atom or an iodine atom, with an enyne compound of formula (III):



wherein R3 and R4 are each independently a hydrogen atom or a tri (C₁ to C₇ hydrocarbon) silyl) group in the presence of a palladium catalyst, and optionally removing the protecting group of the tri (C₁ to C₇ hydrocarbon) silyl) group, and further wherein the vitamin D₃ compound derivative is

- (i) (20S)-1 α , 25-dihydroxy-2 β -methyl-3 β -vitamin D₃;
- (ii) (20S)-1 β , 25-dihydroxy-2 β -methyl-3 α -vitamin D₃;
- (iii) (20S)-1 α , 25-dihydroxy-2 α -methyl-3 β -vitamin D₃; or
- (iv) (20S)-1 α , 25-dihydroxy-2 α -methyl-3 α -vitamin D₃.